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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,213	06/22/2001	Yuji Matsuyama	210029US3DIV	7008

22850 7590 10/15/2003

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EXAMINER

JOLLEY, KIRSTEN

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No. 09/886,213	Applicant(s) MATSUYAMA ET AL.	
	Examiner Kirsten C Jolley	Art Unit 1762	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 26 September 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See attached action.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 2-8 and 25-27.

Claim(s) withdrawn from consideration: _____.

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____

YCF

ADVISORY ACTION

1. The proposed amendments will not be entered because they raise new issues that would require further search and/or consideration and because they do not place the application in better form for appeal by materially reducing or simplifying the issues for appeal. Specifically, claims 25-27 have not before been considered with the limitation "by replacing the treatment atmosphere with inert gas."

2. Applicant argues that You et al. does not disclose a method including a step of lowering an oxygen concentration of a treatment atmosphere by replacing the treatment atmosphere with inert gas when a temperature of the substrate is lower than the temperature at which the coating solution oxidizes because You et al. describes an inert gas for preventing oxidation of the BCB ILD material and the wafer during the elevated temperatures, not at a lower temperature. The Examiner notes that the claims require "lowering an oxygen concentration of a treatment atmosphere by replacing the treatment atmosphere with inert gas when a temperature of the substrate is lower than the temperature at which the coating solution oxidizes." The claims refer to the temperature *of the substrate*, not whether the temperature of the atmosphere in the chamber is high or low. You et al. teaches that the controllable ramping up and down by lifting pins prevents oxidation of the BCB coating since purging of the atmosphere to provide an inert atmosphere in the heating chamber takes a similar time (col. 6, lines 31-39 and col. 7, lines 44-47). Therefore, the introduction of the substrate into the second curing hot plate station and the commencement of ramping down of the substrate while simultaneously purging the atmosphere using inert gas meets Applicant's claim limitation of lowering an oxygen concentration by

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replacing the treatment atmosphere with inert gas when a temperature of the substrate is lower than the temperature at which the coating solution oxidizes. It is known that the temperature of the substrate when it is initially raised over the hot plate on lifting pins and ramping is commenced is lower than the temperature at which the coating solution oxidizes because You et al. teaches that the "rampings prevent oxidation of BCB" (col. 6, line 31).

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirsten C Jolley whose telephone number is 703-306-5461. The examiner can normally be reached on Monday to Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on 703-308-2333. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1193.

kcj

kcj

Shrive P. Beck

SHRIVE P. BECK
SUPERVISOR, PATENT EXAMINER
ART UNIT 1700